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## c) Amendments to the Claims

Please amend the claims and add the new claims as noted below.

- (Currently Amended) A method of real-time testing for the presence of an analyte in an environment, comprising the steps of:
  - (a) obtaining a colorimetric indicator that has been reversibly incorporated into a binding protein, said binding protein having an active site at which the analyte will bind if present, said colorimetric indicator being a porphyrin reversibly bound at said active site to form a complex;
  - (b) exposing said complex to said environment;
  - (c) measuring at least one spectral value of said colorimetric indicator; and,
  - (d) determining from any spectral value so measured whether said colorimetric indicator has been displaced from said binding protein and, thus, whether or not said analyte is present within said environment.
- (Previously Amended) A method according to Claim 1, wherein step (a) includes the step of immobilizing said complex on a surface.
- 3. Cancelled.
- 4. (Original) A method according to Claim 1, wherein said binding protein is AChE.

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- 5. (Original) A method according to Claim 2, wherein said surface is a microscope slide.
- 6. (Currently Amended) A method according to Claim 1, wherein step (c) further includes measuring two spectral values are measured and step (d) further includes determining from said two spectral values so measured whether said colorimetric indicator has been displaced from said binding protein.
- (Original) A method according to Claim 6, wherein a first of said two spectral values is measured at about 402 nm and the other at about 442 nm.
- 8. (Currently Amended) A method according to Claim 1, wherein step (d) includes the steps of:
  - (dl) obtaining at least one pre-exposure spectral measurement of said colorimetric indicator and said binding protein before exposure to the sample,
  - (d2) calculating at least one numerical difference between said at least one measured spectral values and said at least one pre-exposure spectral measurements.
- 9. (New) A method of real-time testing for the presence of an analyte in an environment, comprising the steps of:
  - (a) obtaining a colorimetric indicator that has been reversibly incorporated into a binding protein, said binding protein comprising AChE having an active site

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at which the analyte will bind if present, said colorimetric indicator being reversibly bound at said active site to form a complex;

- (b) exposing said complex to said environment;
- (c) measuring at least one spectral value of said colorimetric indicator; and,
- (d) determining from any spectral value so measured whether said colorimetric indicator has been displaced from said binding protein and, thus, whether or not said analyte is present within said environment.
- 10. (New) A method according to Claim 9, wherein step (a) includes the step of immobilizing said complex on a surface.
- 11. (New) A method according to Claim 10, wherein said surface is a microscope slide.
- 12. (New) A method according to Claim 9, wherein two spectral values are measured.
- 13. (New) A method according to Claim 12, wherein a first of said two spectral values is measured at about 402 nm and the other at about 442nm.
- 14. (New) A method according to Claim 9, wherein step (d) includes the steps
  - obtaining at least one pre-exposure spectral measurement of said colorimetric (d1) indicator and said binding protein before exposure to the sample,

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- (d2) calculating at least one numerical difference between said at least one measured spectral values and said at least one pre-exposure spectral measurements.
- 15. (New) A method of real-time testing for the presence of an analyte in an environment, comprising the steps of:
  - (a) obtaining a colorimetric indicator that has been reversibly incorporated into a binding protein, said binding protein having an active site at which the analyte will bind if present, said colorimetric indicator being reversibly bound at said active site to form a complex;
  - (b) exposing said complex to said environment;
  - (c) measuring at least two spectral values of said colorimetric indicator, wherein a first of said two spectral values is measured at about 402 nm and the other at about 442nm; and,
  - (d) determining from said spectral values so measured whether said colorimetric indicator has been displaced from said binding protein and, thus, whether or not said analyte is present within said environment.